



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------------------|-------------|----------------------|---------------------|------------------|
| 10/797,364 | 03/10/2004 | Pieter Kruit | 3531P014 | 4344 |
| 8791 | 7590 | 06/14/2006 | EXAMINER | |
| BLAKELY SOKOLOFF TAYLOR & ZAFMAN | | | BERMAN, JACK I | |
| 12400 WILSHIRE BOULEVARD | | | | |
| SEVENTH FLOOR | | | ART UNIT | PAPER NUMBER |
| LOS ANGELES, CA 90025-1030 | | | | 2881 |

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

(8)

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/797,364 | KRUIT, PIETER | |
| | Examiner | Art Unit | |
| | Jack I. Berman | 2881 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 27 March 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4, 6-26 and 28-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 1-4, 6-10, 13-26, 28-32 is/are allowed.
- 6) Claim(s) 11 and 12 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 10 March 2004 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

The indicated allowability of claims 11 and 12 is withdrawn in view of the newly discovered lines in the Le Poole patent. Rejections based on the newly cited lines follow.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 11 is rejected under 35 U.S.C. 102(b) as being anticipated by Le Poole. The previous Office action stated, on page 5: “Nothing in the prior art suggests … making either the aperture array or the lens array concave with respect to the charged particle source.” However, upon reviewing the reference, the examiner noted lines 2-10 in column 2, which read:

This part of the surface can be increased by using a curved grid structure. By potential selection of the grid and the adjoining electrodes it is possible to form a diverging lens whereby the incident beam of charged particles is divided into a matrix of mutually diverging elementary beams. Thanks to the small lens effect of the gauze apertures, each of these elementary beams constitutes a beam with an angle of aperture yet to be selected.

Also, lines 42-46 in column 3 read:

By constructing the combined wire grids to be convex, better adaptation to equipotential planes of the electric field generated by the electrodes 20 and 22 is achieved, and hence also a homogeneous field strength across a substantially larger part of the gauze structure.

Therefore, Le Poole discloses an apparatus for generating a plurality of charged particle beamlets, comprising:

- a charged particle source (4) for generating a diverging charged particle beam;
- a converging means (first lens 40) for refracting said diverging charged particle beam;

Art Unit: 2881

-a lens array (gauze structure 18) comprising a plurality of lenses (note the above cited section of Le Poole which refers to the lens effects of the gauze apertures, the same effect as that discussed in the instant application), located between said charged particle source and said converging means, wherein said lens array is concave with respect to said source (as is discussed above in the newly cited portions of the patent).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Le Poole. If the curved gauze structure suggested by Le Poole is to focus all the charged particle beams coming from a single point (16), it would have been obvious to a person having ordinary skill in the art to use this point as the focal point of its curvature so that its focusing power on each beam is the same.

Claims 1-4, 6-10, 13-26, and 28-32 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: As was stated in the previous Office action, nothing in the prior art suggests combining Le Poole's aperture array (gauze 18) in addition to the lens array (beam splitting gauze) used by Roelofs et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack I. Berman whose telephone number is (571) 272-2468. The examiner can normally be reached on Monday-Thursday (8:30-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jack I. Berman
Jack I. Berman
Primary Examiner
Art Unit 2881

jb
6/12/06